Attorney Docket: 361007-000036

10/685041

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: Herr, Daniel Joseph Christian

Serial Number: Not Assigned Filed: Concurrently Herewith

For: SUPERMOLECULAR STRUCTURES AND DEVICES MADE FROM SAME

Commissioner for Patents PO Box 1450 Alexandria, VA 22313-1450

## INFORMATION DISCLOSURE STATEMENT UNDER 37 C.F.R. § 1.56 AND 37 C.F.R. § 1.97

It is respectfully requested that the document listed on the attached Form PTO/SB/08A be considered by the Patent and Trademark Office in the above-referenced application and made of record therein. A full text copy of the relevant documents have been previously disclosed in the parent application Ser. No. 09/510,802. This information disclosure statement submitted herewith is being filed within three months of the filing date of the application or date of entry into the national stage of an international application or before the mailing date of a first Office action on the merits, whichever event occurs last.

Respectfully submitted,

By:

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Registration No. 37,911
Attorney for Applicant
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Durham, NC 27705 Phone: 919-286-8000 Facsimile: 919-286-8199 October 13, 2003

Date

PTO/S8/08A (08-00)

Approved for use through 10/31/2002. OMB 0851-0031
U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

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Cubetitute	e for form 1449A/PTO			c	Complete if Known
ŀ				Application Number	09/510,802
	INFORMATION DISC	LOS	URE	Filing Date	February 23, 2000
1	STATEMENT BY AP	PLIC	ANT	First Named Inventor	Herr
1			(	Group Art Unit	2815
1	(use as many sheets as n	ecessa	TVI	Examiner Name	J. Jackson, Jr.
Sheet	1	of	1	Attorney Docket Number	361007-0000007

				U.S. PATENT DOCUM	MENTS		
Examiner Initials'	Cite No. <sup>1</sup>	U.S. Pa Number	Kind Code <sup>2</sup>	Name of Patentee or Applicant of Cited Documents	Date of Publication of Cited Document MM-DD-YYYY	Pages, columns, lines, Where Relevant Passages or Relevant Figures Appear	

Examiner Initials'	Cite	Fore	ign Patent D	ocuments	Name of Patentee or	Date of Publication	Pages, Columns, Lines, Where Relevant	
	No.1	Office <sup>3</sup> Number <sup>4</sup>		Kind Code <sup>5</sup> (if known)	Applicant of Citéd Documents	of Cited Document MM-DD-YYYY	Passages or Relevant Figures Appear	
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Cite No.1	OTHER PRIOR ART—NON PATENT LITERATURE DOCUMENTS  Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), data, page(s), volume-issue number(s), on higher city and/or country where published.	Т2
	D. M. Eigler et al., "Positioning single atoms with a scanning tunnelling microscope". Nature, Vol. 344 (April 1990) pp 524-526	
AB	P. Bedrossian et al., "Demonstration of the tunnel-diode effect on an atomic", scale, <i>Nature</i> , Vol. 342 (November 1989) pp 258-260	
1	No.1	AA D. M. Eigler et al., "Positioning single atoms with a scanning tunnelling microscope", Nature, Vol. 344 (April 1990) pp 524-526  AB P. Bedrossian et al., "Demonstration of the tunnel-diode effect on an atomic",

Examiner	Date
Signature	Considered

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1 Unique citation designation number. 2See attached Kinds of U.S. Patent Documents. 3 Enter Office that issued the document, by the two-letter code (WIPO Standard St.3). 4For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. 5Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. 6Applicant is to place a check mark here if English language Translation is attached.

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Substitute	e for form 1449A/PTO			C	Complete if Known				
				Application Number	09/510;802				
	INFORMATION DIS			Filing Date	February 23, 2000				
	STATEMENT BY A	PPLICA	NT	First Named Inventor	Herr, Daniel Joseph Christian				
				Group Art Unit	2815				
	(use as many sheets as	necessary)		Examiner Name	Jackson				
Sheet	1	of	2	Attorney Docket Number	361007-07				

				U.S. PATENT DOCUM	MENTS	
Examiner Initials'	Cite No.1	Number	er Kind Code <sup>2</sup> of Cited Documents  of Cited Documents		Date of Publication of Cited Document MM-DD-YYYY	Pages, columns, fines, Where Relevant Passages or Relevant Figures Appear
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Substitute	for form 1449B/PTO			Complete if Known				
				Application Number	#9/910,602			
	INFORMATION DISCI	LOS	URE	Filing Date	February 23, 2000			
l	STATEMENT BY APP	LIC	ANT	First Named Inventor	Herr, Daniel Joseph Christian			
i				Group Art Unit	2815			
	(use as many sheets as ne	cessa	ry)	Examiner Name	Jackson			
Sheet	2	of	2	Attorney Docket Number	361007-000007			

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		publisher, city and/or country where published.  Saito, S. et al., "Electronic Structure of Si <sub>20</sub> and C <sub>20</sub> Fullendes," Proceedings of the Symposium on Recent Advances in the Chemistry and Physics of Fullerenes and Related Materials, Vol. 3, pp. 457-461, 1996	
		Cavin, R. et al., "Semiconductor research needs in the nanoscale physical sciences: a Semiconductor Research Corporation working paper," Journal of Nanoparticle Research 2; pp. 213-235; 2000.	
		Ozin, Geoffrey A.; "Nanochemistry: Synthesis in Diminishing Dimensions," Advanced Materials 4, No. 10; pp.612-649; 1992.	
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	Des	iraju	G.R.	(Ed.)	. Tho	ughts or	Cry.	tals a	s Supra	molecules, The	Crystal as a	Supermolec	ular Entity,	John Wile	y and Sons Ltd., 1996.		
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	Fey Hey	nmar (Ed	1, R.P .), Fe	., The	re's P	lenty of Computa	Room	n at the Explo	e Botton	n, Engineering Limits of Con	and Science, nputers, Pers	Vol. 23, 1 eus Books,	960, pp. 22- 1999.	36, Reprin	ted in Anthony J.G.		
			al., Si		ayer l	Electrol	umine	scent i	Devices	Based on Mol	ecularly Dope	ed Polymer	(MDP) Film	s, Syntheti	c Metals, Vol. 84,		
	Joh	nson,	et al.	, Elec	trolun	inescen	ce Fr	om Sir	igle La	er Molecularly	Doped Poly	ner Films,	SPIE, Vol.	1910, 1993	, pp. 6-14.		
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						ection as Decemb					ns With Delt	a-Doped Ch	arge-Couple	d Devices,	Applied Physics		
			et al.		s Fiel	d-Effect	Tran	sistor	With Ai	Atomically Pr	ecise Ultrash	ort Gate, A	ppl. Phys. I	ett., Vol.	59, No. 9, August 26,		
			et al.,		ects f	or Atom	ically	Orde	red Dev	rice Structures	Based on STA	1 Lithograp	hy, Solid-Su	ate Electro	nics, Vol. 42, No. 7-8,		
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